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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/683,643 | 10/09/2003 | Jeremy Barker | VT-2165 | 1205 |
| 33204 | 7590 | 11/30/2004 | EXAMINER | |
| VALENCE TECHNOLOGY, INC. 301 CONESTOGA WAY HENDERSON, NV 89015 | | | JOHNSON, EDWARD M | |
| | | ART UNIT | PAPER NUMBER | |
| | | 1754 | | |

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------------|-------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/683,643 | BARKER ET AL. |
| | Examiner Edward M. Johnson | Art Unit 1754 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 October 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 and 16-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 and 16-36 is/are rejected.
- 7) Claim(s) 25 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 25 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must recite the claims it depends from in the alternative. See MPEP § 608.01(n). Examiner suggests replacing "claims" with --claim--. Accordingly, the claim has not been further treated on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 6-11, 15, 17-19, 21-24, 29, 31-33, 35-39, and 43-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 34 "said admixture" lacks antecedent basis. Examiner suggests --said particulate admixture--.

Claim 6, line 8, "the metal" lacks antecedent basis or is unclear as to which metal is being referred to.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 7, 31, and 35 recite the broad recitation "particulate reducing agent selected from the group consisting of...", and the claims also recite "metals selected from the group consisting of" which is the narrower statement of the range/limitation.

Claim 9 appears to contain only product limitations and is unclear as to how it limits a process of making. Also, "characterized by" is unclear as to whether the process actually

contains the claimed structure or whether it may merely be characterized as such. Examiner suggests replacing "is characterized by" with --has a--.

Claim 18, "the source of lithium ions" lacks antecedent basis.

Claim 37, "said heating" lacks antecedent basis.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-14 and 16-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaffar US 4,427,652 in view of Weststrate et al. US 4,460,565.

Regarding claims 1, 19, 21, and 32, Gaffar '652 discloses a process for making dental phosphate compound (title, abstract, column 4, lines 19-25) comprising reacting a phosphate compound, a metal compound, and a reducing agent (see column 2, lines 53-68 and column 4, lines 19-35) by admixing ingredients by milling at sufficient particle size and heating temperature (see column

2, lines 53-68; column 3, lines 1-29; and column 5, lines 10-13).

Gaffar '652 fails to disclose a lithium compound to produce lithium metal phosphate.

Westrate '565 discloses lithium fluorophosphates and vanadium fluorophosphates (see column 1, lines 60-63).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lithium compound of Westrate to produce lithium vanadium fluorophosphates in the dental compound process of Gaffar because Westrate discloses both lithium and vanadium fluorophosphates consecutively as examples of suitable compounds in a process for making a compound capable of restoring carious tooth parts for use in toothpastes (see column 1, lines 5-16), which would obviously, to one of ordinary skill, suggest the combination of lithium vanadium fluorophosphates in a toothpaste compound.

Regarding claims 3-8, 10-17, 20, 22-31, 33-36 Westrate '565 discloses vanadium fluorophosphates (see column 1, lines 60-63), which would obviously, to one of ordinary skill suggest stable vanadium oxide, vanadium pentoxide. Gaffar '652 discloses aluminum fluorophosphates and diammonium phosphate (see column 6, lines 12-14 and 45).

Regarding claims 37-39 and 43-48, Gaffar discloses a resin pot under nitrogen atmosphere (see column 8, line 1).

Regarding claim 2, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a temperature of about 500 degrees in the dental phosphate making process of Gaffar because one of ordinary skill would have employed such a temperature to sterilize the compound before applying orally.

Regarding claim 9, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a triclinic structure because Gaffar discloses crystalline silica, which would obviously, to one of ordinary skill, suggest a triclinic structure of the disclosed crystals.

Regarding claim 18, Westrate '565 discloses lithium fluorophosphates, vanadium fluorophosphates (see column 1, lines 60-63), and ferric and magnesium compounds (see column 1, lines 55-63).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

Art Unit: 1754

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.

EMJ

November 29, 2004

